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Gastrointestinal distress, lack of efficacy, and systemic inflammatory response syndrome and respiratory with circulatory failure: case report

A 71-year-old man developed gastrointestinal distress during treatment with cisplatin and paclitaxel, and exhibited lack of efficacy during treatment with gefitinib for primary pleural squamous cell carcinoma (PPSCC). Additionally, he developed systemic inflammatory response syndrome and respiratory with circulatory failure during treatment with camrelizumab for PPSCC [not all routes, dosages and outcomes stated; time to reaction onsets not stated].

The man, who had PPSCC, was referred for further treatment. He had type 2 diabetes for 7 years and a history of varicose veins in both lower legs. He had received radiotherapy in February 2019 for his mediastinum after detection of extensive inhomogeneous thickening of the right and interlobar pleuras that invaded the right pericardial invasion with mediastinal lymph nodes surrounding the superior vena cava. Additionally, he had received systemic chemotherapy with paclitaxel and cisplatin between March 2019 and April 2019. However, he had developed severe gastrointestinal distress due to chemotherapy.

Therefore, the man's treatment with cisplatin and paclitaxel was discontinued after 2 cycles. Further genetic testing detected a L858R mutation in epidermal growth factor receptor (EGFR) exon 21 and an EML4-anaplastic lymphoma kinase (ALK) fusion gene mutation. Therefore, he received gefitinib. However, tumour progression was noted after 4 months of treatment (lack of efficacy). CT scan revealed both lung and liver metastases. During treatment, his dyspnoea did not alleviate, and his overall condition deteriorated with a weight loss. Then he was referred to another hospital (current presentation). Further evaluation showed pleural malignant tumour, coagulation dysfunction and platelet aggregation. After retesting the haematological samples, no mutations was found in the the EGFR and ALK genes, and the tumour expressed a high level of PD-L1. Therefore, he started receiving IV camrelizumab 200mg once every 3 weeks for a total of six times between 20 October 2019 and 11 February 2020. During camrelizumab treatment, dyspnoea reduced significantly along with reduction in the pleural effusion, pleural nodules, pulmonary lesions and lymph nodes. His lungs had been infected throughout [aetiology not stated]. One month after the completion of camrelizumab treatment, the inflammation markers increased and he developed cough, expectoration and dyspnoea. Initially, exacerbation of lung infection was considered, and the antibiotic treatment was escalated to meropenem. Although the levels of inflammatory markers decreased, the symptoms such as dyspnoea were still aggravated. Therefore, immune-related adverse events (irAEs) was considered, and he was admitted and treated with methylprednisolone. However, the symptoms did not alleviate. During admission, CT scan revealed only pulmonary infection without signs of interstitial pneumonia caused by camrelizumab. COVID-19 pneumonia was ruled out. His condition became complicated at the end stage of the disease. Eventually, he died in March 2020 due to respiratory and circulatory failure. Therefore, it was concluded that, he might have developed systemic inflammatory response syndrome and respiratory with circulatory failure secondary to camrelizumab therapy.

Wang Y, et al. Primary Pleural Squamous Cell Carcinoma, Highly Positive PD-L1, Shows Marked Response to Camrelizumab: A Case Report. Clinical Medicine Insights:
Oncology 15: 2021. Available from: URL: https://journals.sagepub.com/home/onc